B1916-3-4

FINANCIAL ANALYSIS OF A GROUP OF PETROLEUM COMPANIES

1986

CHASE

Financial Analysis of a Group of Petroleum Companies 1986

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Global Energy Component

The Chase Manhattan Bank, N.A.

Companies Included in Study

Amerada Hess Corporation*
Amoco Corporation*
Ashland Oil, Inc.*
Atlantic Richfield Company*
The British Petroleum Company p.l.c.*
Champlin Petroleum Company
Chevron Corporation*
Exxon Corporation*
Kerr-McGee Corporation
The Louisiana Land and Exploration Company*
Mobil Oil Corporation*
Murphy Oil Corporation*
Pennzoil Company
Petrofina Société Anonyme
Phillips Petroleum Company*
Royal Dutch/Shell Group of Companies*
Société Nationale Elf Aquitaine
Sun Company, Inc.*
Texaco Inc.*
TOTAL Compagnie Française des Petroles
Unocal Corporation*

*continuous Chase Group members

This study is based on data secured from annual reports to stockholders and to the Securities and Exchange Commission and on information developed from other sources. The Global Energy Component wishes to thank the companies and individuals who have cooperated in supplying special information and material used in this survey.

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Foreword

As in prior years, the primary focus of this publication is the performance of the integrated multinational oil company as represented by the Chase Group of Companies. The tumultuous events in the petroleum industry in 1986 presented these companies with perhaps their most serious financial challenge since the 1930s. The oil market turmoil also highlighted the ambiguous relationship between two major forces in the industry — the multinationals and the OPEC producing countries. While a common interest in maximizing returns from oil-related investments is shared, a rivalry exists as well.

To a large degree, it was the multinationals that discovered and developed oil production in the OPEC countries during the 1950s and 1960s. Furthermore, their aggressive marketing thrust into postwar Europe and Japan helped transform previously coal-based economies into major consumers of OPEC oil. In the late 1960s and early 1970s, however, the multinationals lost control of these huge upstream assets when OPEC countries nationalized their oil industries. In response to this loss, the multinationals poured cash into new non-OPEC oil and gas developments, most notably in the North Sea and the United States.

Higher energy prices set by OPEC during the 1970s increased the multinationals' cash flows and provided most of the necessary funds for the massive investments required to develop the new non-OPEC production. Ironically, this new production, combined with the reduced oil demand also resulting from the price increases of the 1970s, was destined to shut in OPEC production in the 1980s. In 1986, faced with shrinking market share, a struggle to regain market dominance took place; submerged rivalries within OPEC surfaced and prices collapsed.

In the past, some observers have been quick to write off the prospects of the multinationals in favor of OPEC over the long term. However, the multinationals' importance should not be under-

estimated, as they are the primary representation of Adam Smith's "invisible hand" in the petroleum industry. Their dominant position in the marketing of oil products assures them a major role at a time when crude supply is plentiful.

The fundamental emphasis of this publication is a comparison of the Group's operating and financial performance for the last two years. This year, however, for the first time, important financial and operating trends are also analyzed in a longer-term historical context by reference to a slightly different data base represented by the "Continuous Chase Group" (CCG). The CCG is composed of companies that have remained part of the Chase Group for over 25 years. These firms represent about 90 percent of the entire Group, as measured by most operational and financial criteria. This approach to long-term trend analysis is necessary to account for the discontinuities in the Chase Group that have occurred over the years through, for instance, mergers and acquisitions. A complete list of the Chase Group appears on the inside cover of this booklet, with members of the CCG highlighted.

Crude Oil and Natural Gas Liquids Production

In the United States, where high-cost stripper production accounts for about 10 to 15 percent of total production, producers faced a situation undreamed of only a few years ago — wholesale shutting in of production because crude prices were insufficient to cover operating expenses. Compounding the production decline was the collapse in drilling and the consequent failure to replace production with new reserves. As a measure of this downturn, well completions fell from over 70,000 wells in 1985 to about 38,000 in 1986.

As a result, the Chase Group suffered a production decline of 2 percent in the U.S. in 1986. This rate of production decline can be expected to accelerate in the future, if oil prices continue at current levels as the lagged effect of shut-ins and reduced drilling accumulates. The Chase Group was able to maintain its 53 percent market share of liquids produced in the U.S., however, despite the production decline, since all producers were similarly affected (see Graph 1).

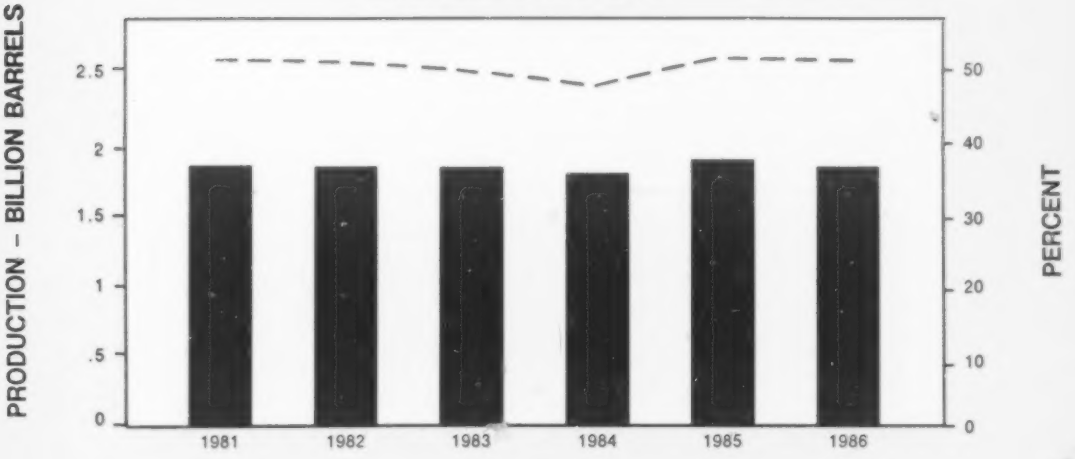
In overseas locations, the production picture was rosier in absolute terms for the Chase Group, with production increasing for the sixth straight year, as investments in such areas as the North Sea achieved peak production rates. But, as shown in Graph 2, in relative terms, the Group lost market share as OPEC production swamped the market.

The importance of overseas liquids production to the Chase Group continued to increase, relative to the U.S., reaching 47 percent of the world total in 1986.

CHASE GROUP* LIQUIDS PRODUCTION

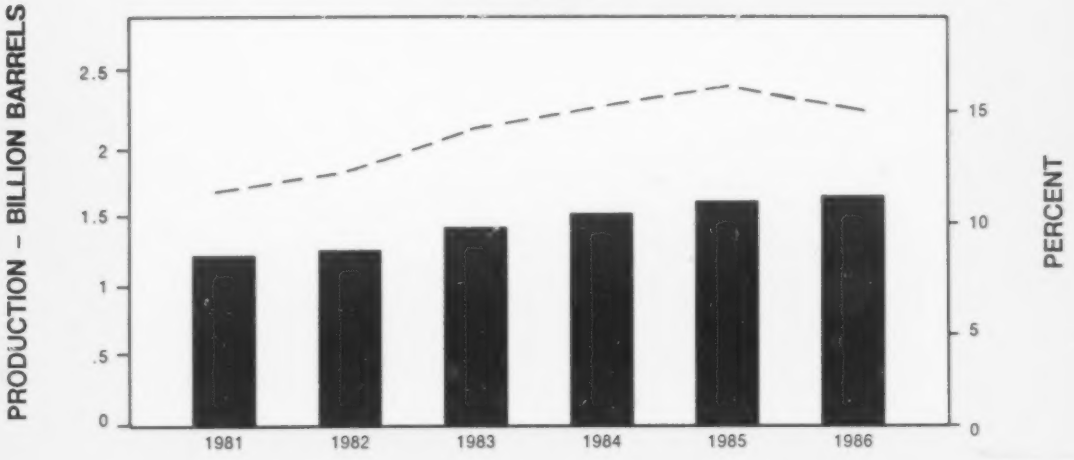
GRAPH 1

UNITED STATES



GRAPH 2

FOREIGN



* Continuous Chase Group

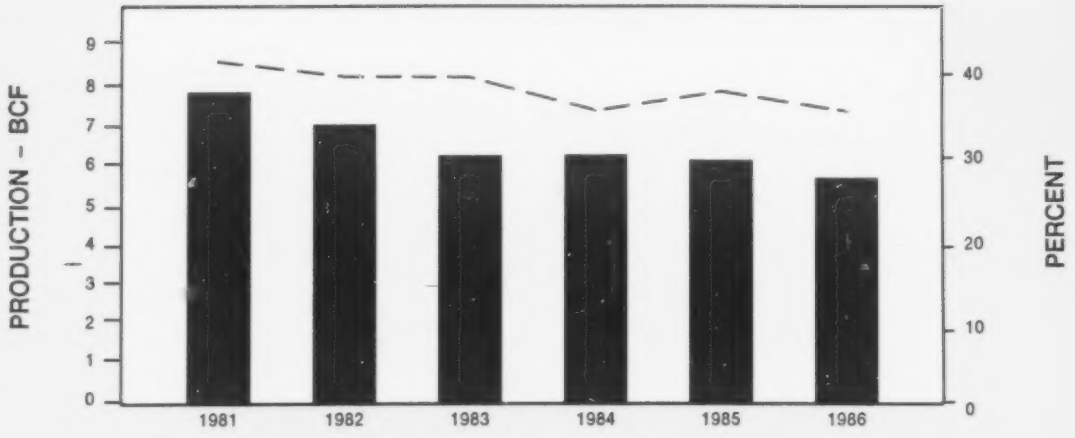
Chase Group Production

Chase Group % of Total Liquids Production

CHASE GROUP* GAS PRODUCTION

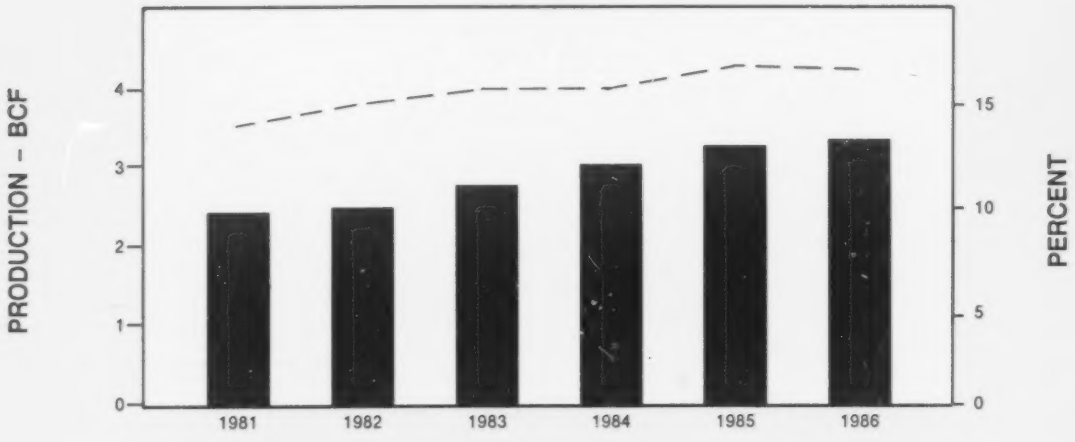
GRAPH 3

UNITED STATES



GRAPH 4

FOREIGN



* Continuous Chase Group

Chase Group Production

Chase Group % of Total Gas Production

Natural Gas Production

In the U.S., the Chase Group suffered both an absolute and relative decline, as shown in Graph 3. The absolute decline in Chase Group gas production is, in part, linked to the fortunes of the gas industry as a whole, which has experienced a steady decline in demand of about 3.5 percent annually over the last six years. In 1986, competition from cheap residual fuel accentuated this trend. The Group's loss of relative U.S. market share may reflect its prominence in offshore Gulf Coast developments, which have suffered particularly severe curtailments as the gas surplus expanded. Furthermore, in 1986, this deterioration in market share was deepened by the unwillingness of some companies to accept in full the exceptionally low gas prices offered by pipeline buyers.

Overseas, as shown in Graph 4, the six-year trend for the Group is more encouraging: The companies have consistently increased gas reserves and improved market share. This performance may highlight a continuing growth area for the Group. Gas markets in some overseas countries are relatively undeveloped compared with the United States, and consuming countries are eager to reduce dependence on imported oil.

Refinery Runs and Petroleum Product Marketing

Refinery runs for the Chase Group increased by 1.5 percent from 1985. This increase is in line with the 1.7 percent general increase in demand for petroleum products worldwide and was obtained by improved utilization of existing plant, rather than by expansion of refining capacity. The Group increased the volume of petroleum product marketed from 9.35 billion barrels in 1985 to 9.64 billion barrels in 1986, a 2.9 percent increase. As a consequence, the Group maintained its market share of about 59 percent of product sold worldwide.

Income Statement, Margin Analysis and Rates of Return

Income Statement

A review of the aggregate income statement for the Chase Group reveals little of the dynamics of the industry, other than the obvious — profits were down.

But what accounts for this decline in profitability? Has one business segment suffered more than others? If so, what does this imply about future corporate strategies? And, how severe is this profitability decline in a historical context?

To investigate these questions, profitability for the Group is presented below for major upstream and downstream operations on a margin basis. Overall profitability has also been put in perspective by comparing current rates of return with historical performance over the last 25 years.

Upstream Margins

Comparison of cash margins for production on a geographical basis reveal some important differences. While the abrupt decline in energy prices in 1986 hit upstream margins hard worldwide, the impact on United States operations was particularly severe.

Table 1 shows estimated aggregate U.S. cash margins from Chase Group net production on a dollar per barrel equivalent basis for 1985 and 1986:

Table 1
United States
Upstream Margin
($/Barrel Equivalent)

	1986	1985	% Change
Revenue	11.56	19.99	-42
Lifting Costs	3.93	4.36	-10
Other Expense/(Income)	0.05	(0.04)	—
Severance Tax	0.69	1.20	-42
"Windfall Profit Tax"	0.00	1.07	-100
Income Tax	0.00	3.00	-100
Subtotal Government "Take"	0.69	5.27	-87
Cash Margin before Exploration Expense	6.89	10.40	-34
Exploration Expense	1.61	2.35	-31
Cash Margin	5.28	8.05	-35

Notes: 1) Gas converted to oil at 6 MCF/barrel.
2) Income taxes exclude estimated deferred taxes.

As shown above, although net wellhead revenues declined by 42 percent from 1985 levels, cash margins after exploration expense fell by 34 percent. Cushioning the price decline were the federal and state governments. Severance tax fell by an estimated $0.51 per barrel and current income taxes by $3.00 per barrel. OPEC's ad hoc repeal of the "Windfall Profit Tax" contributed $1.07 per barrel to this cushion.

Cash margins realized by the Chase Group on a dollar per barrel equivalent basis from oil and gas extraction activity outside the United States are shown in Table 2.

Table 2
World Outside United States
Upstream Margin
($/Barrel Equivalent)

	1986	1985	% Change
Revenue	14.50	25.00	-42
Lifting Costs	4.78	6.15	-22
Other Income/Expense	(0.48)	0.06	—
Government"Take"	3.30	10.21	-68
Cash Margin before Exploration Expense	6.90	8.58	-20
Exploration Expense	1.66	1.96	-15
Cash Margin	5.24	6.62	-21

Notes: 1) Gas converted to oil at 6 MCF/barrel.

2) Income taxes exclude estimated deferred taxes.

A comparison of the margins in the United States and overseas is obscured to some degree by the effect of Alaskan North Slope production; since about 20 percent of the Chase Group's U.S. production is derived from the North Slope, U.S. wellhead revenues are lower per barrel than overseas, due to high transportation costs. Nevertheless, the margins indicate that, in 1986, the relative profitability of United States oil and gas production has deteriorated compared with foreign production. While margins fell about 34 percent in the United States, they only fell by 21 percent overseas.

Furthermore, the absolute profitability has narrowed. In 1985, the cash margin after exploration expense for United States production was $1.43 per barrel equivalent higher than in foreign operations, but in 1986, this difference was essentially eliminated. Even after an adjustment for Alaska pipeline cash flow, the relative deterioration in U.S. cash margins remains more serious than overseas. Since production in the United States generally requires higher capital investment per barrel of production than overseas, rates of return on capital have declined more sharply in the United States.

The major reason for the relatively better performance overseas is largely geologic — outside of Alaska, the U.S. is a very mature producing region with a typical new discovery relatively small by international standards. Despite these poor geologic prospects, during the period of high oil prices, development of small reserves was economic. In overseas areas, where larger reservoirs were developed, a great deal of the economic rent from the projects was siphoned off by the host governments. While the multinationals complained loudly about these high tax rates during the boom years, when prices declined, the high rates provided a cushion as the host governments shared disproportionately in the price downturn. On a barrel equivalent basis, therefore, in the U.S., the government absorbed $4.58 of the price decline, and overseas, the foreign governments absorbed $6.91. Furthermore, as the margin analysis indicates, the government cushion in the U.S. was nearly exhausted in 1986, while overseas, $3.30 per barrel still remained.

Whether this relative shift in profitability will result in a greater emphasis on overseas exploration and development by these companies is not certain, given the political risks involved. If expectations of moderate oil prices and stable foreign tax regimes become the standard in industry evaluations, it is likely that economics will favor relatively more investment overseas in the future. A moderation in tax policy by foreign governments would accentuate such a trend. The situation may be similar to conditions in the 1960s, when a combination of low oil prices and relatively high-cost U.S. production resulted in a major thrust overseas by the Chase Group.

Downstream Margins

The profitability turnaround story of 1986 for the Chase Group was in the downstream subsidiaries. For years, as their upstream counterparts turned in huge profits, the downstream subsidiaries produced mediocre, and at times humiliating, results. But in 1986, the transportation, refining and marketing subsidiaries enjoyed record profits. A number of factors contributed to this performance. First, and most important, since crude prices fell more rapidly than product prices, the downstream affiliates saw their gross margins expand significantly. Second, the results of several years of aggressive rationalization — capacity reductions, trimming of marginal operations and cost containment — bolstered the bottom line. Finally, for companies with major foreign outlets, the fall in the U.S. dollar translated into larger marketing margins.

In order to gauge the impact of this profit rebound, Table 3 presents a composite downstream margin, based on barrels of product sold in 1986 and 1987.

Table 3
Downstream Margin $/Product Barrel

	1986	1985	% Change
Pre-Tax Net Cash Flow	2.23	1.55	+44
Income Tax	0.69	0.43	+61
After-Tax Net Cash Flow	1.54	1.12	+39
Product Barrels Sold, Billion Barrels	9.64	9.35	+3
Refinery Runs, Billion Barrels	6.92	6.82	+2

In comparison to upstream margins, it should be emphasized that this increased margin was realized on product volumes approximately 70 percent higher than upstream production volumes, and, therefore, the improved downstream margins have had a significant impact on the cash flows of the Chase Group of Companies.

Since a great deal of this improvement was due to the extraordinary price declines in 1986, it is unlikely that this performance can be maintained in the future. Nevertheless, the 1986 results provided a reminder of the benefits derived from downstream integration. In volatile times, such diversification can add a degree of stability to profits and cash flow. Furthermore, unlike upstream activities, downstream operations are not depleting in nature, require relatively modest capital expenditures to maintain capacity and are generally located in countries where political risk is low. Finally, refineries can generate profits from potentially cheaper third-party sources of crude as well as from internal supplies.

Rates of Return

Although the improved downstream earnings for the Chase Group of Companies helped to cushion the impact of lower oil and gas production profits, the overall rates of return for the Group fell significantly. This is hardly surprising. Historically, the lion's share of the profits for these companies has been derived from upstream activities. A reversal in upstream fortunes has an important impact on the general profitability of these firms.

In order to put a historical perspective on this year's reduction in overall profitability, the rates of return on assets and equity have been examined for the 25-year period from 1961-86 for the Chase Group.

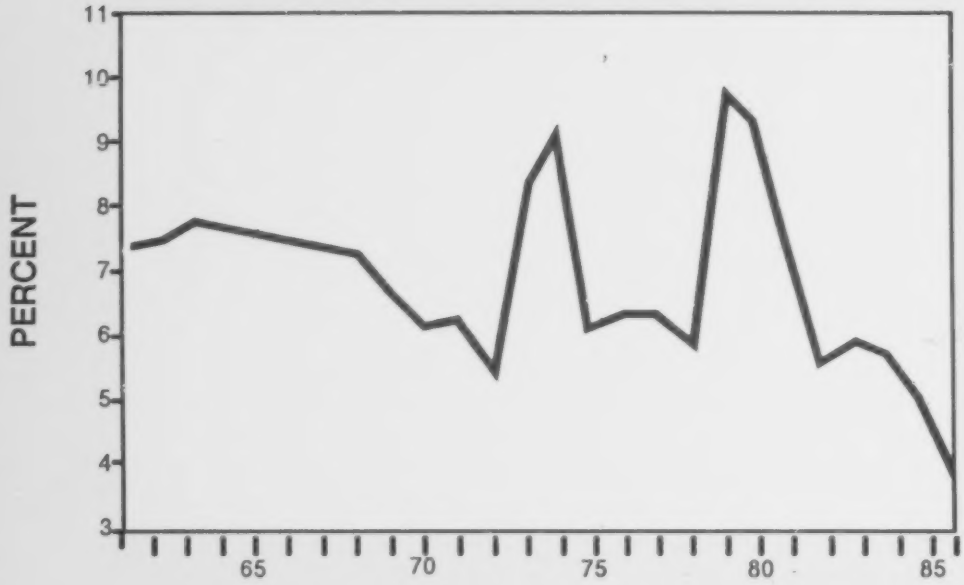
As shown in Graph 5, the rate of return on assets for the Chase Group hit a 25-year low in 1986. This relatively poor performance may explain why a large number of the multinationals are aggressively paring their marginal assets.

Although the rate of return on equity has declined, it is not as low as the fall in ROE would imply, as shown in Graph 6. How has this happened? Graph 7 reveals the major reason — leverage. Although part of the increase in leverage for the Group is a result of the heavy borrowings by a few companies to finance stock repurchases or major acquisitions, the Group on average is more highly leveraged than in the 1960s.

Compared with the Standard and Poor's 400 group of industrial companies, the Continuous Chase Group experienced an above-average performance during the booming years of the late 1970s and early 1980s. But, as shown in Graph 8, the Group's return on equity has fallen more in line with the industrial average since 1982.

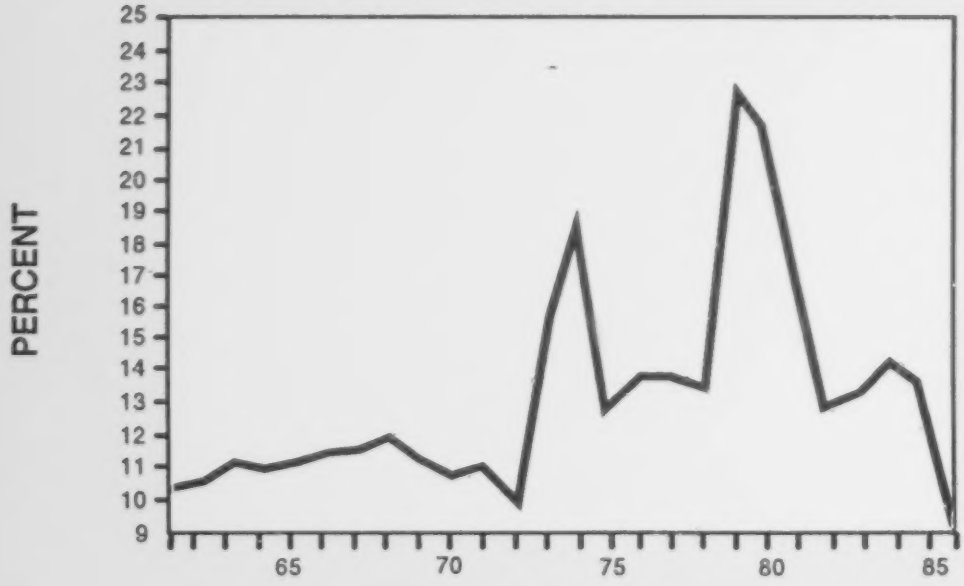
GRAPH 5

CHASE GROUP* – RETURN ON ASSETS



GRAPH 6

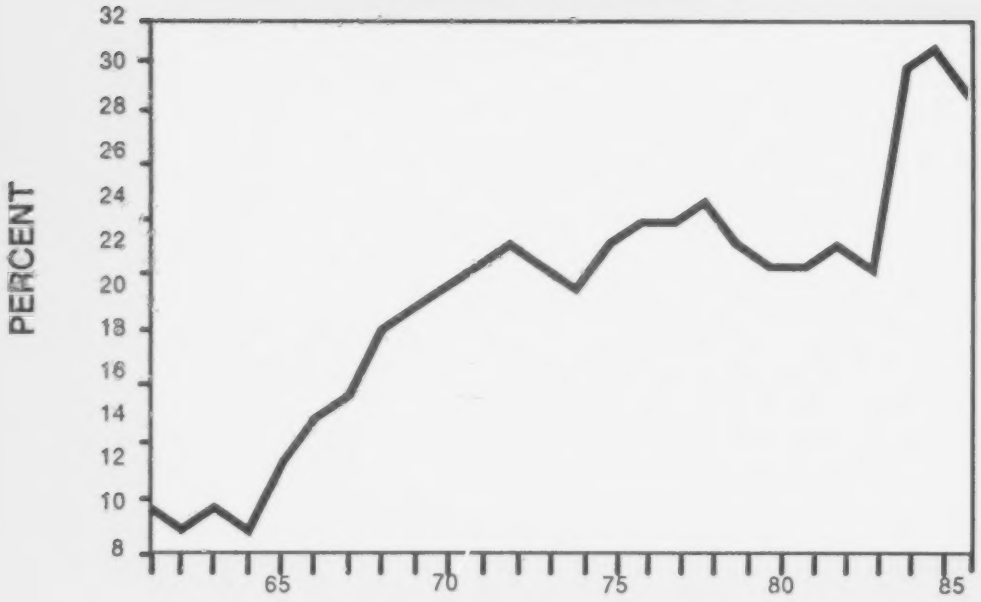
CHASE GROUP* – RETURN ON EQUITY



* Continuous Chase Group

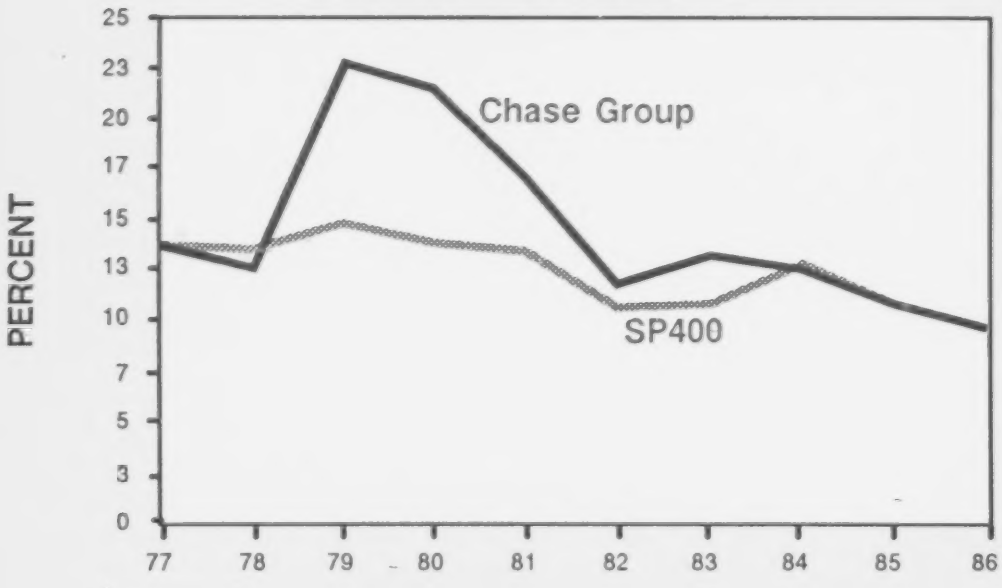
GRAPH 7

CHASE GROUP * LONG TERM DEBT AS A PERCENT OF TOTAL CAPITAL



GRAPH 8

CHASE GROUP * VS. SP400 RETURN ON EQUITY



* Continuous Chase Group

Balance Sheet

The aggregate balance sheet of the Chase Group of Companies reflects the impact of the events of 1986 — upheaval in the current portion but relative stability in long-term assets and liabilities.

Current Assets and Liabilities

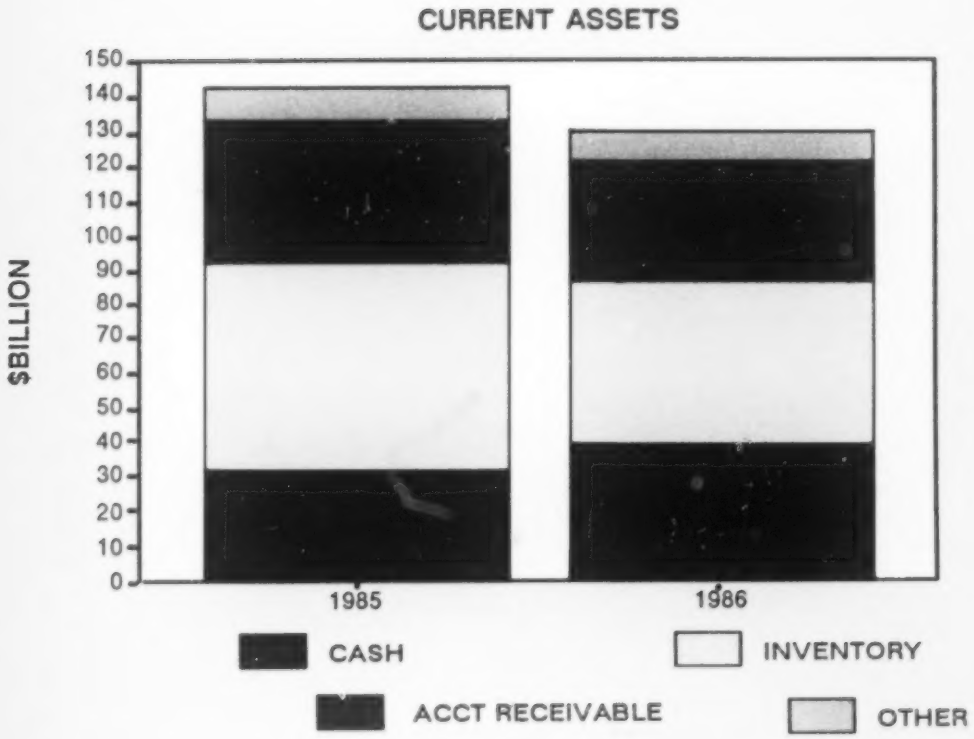
Adjusting to the dramatic change in energy prices, accounts receivable and inventories fell on the asset side of the balance sheet as accounts payable and income taxes payable fell on the liability side by approximately an equal dollar amount, as shown in Graph 9. Perhaps as an indication of the turmoil and uncertainty of 1986, the Group increased cash or equivalent holdings by $7.7 billion, or almost a 9 percent increase. Overall net working capital increased by over $11 billion, and the current ratio improved from 1.14 in 1985 to 1.28 in 1986.

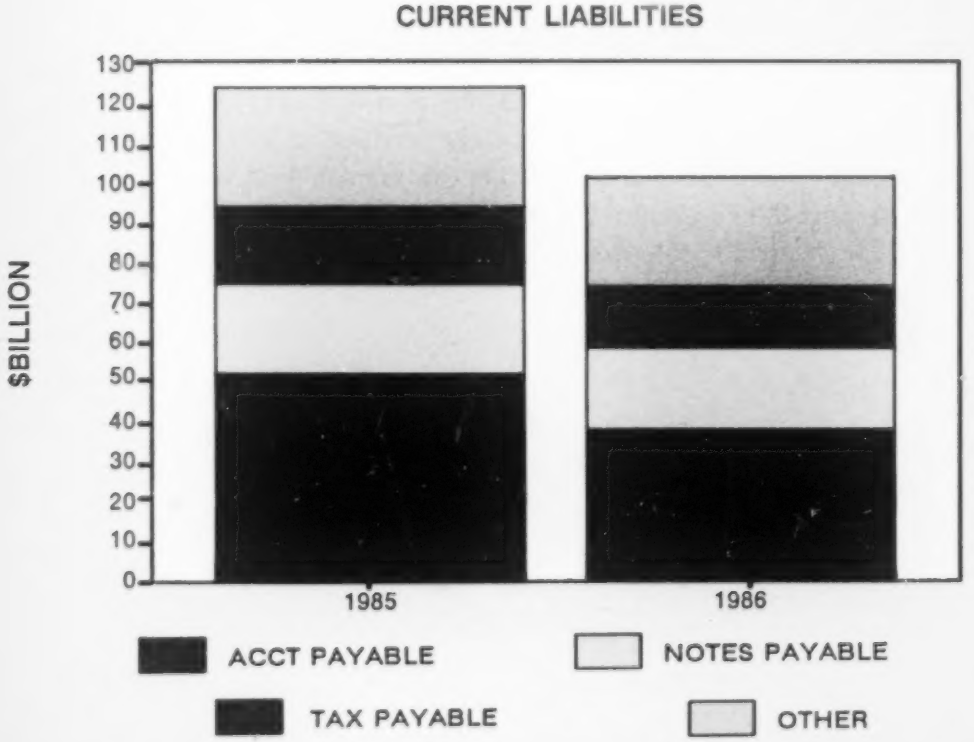
Long-Term Assets and Liabilities

In contrast to the current portion of the balance sheet, the long-term assets and liabilities were relatively stable, with shareholders' equity increasing a modest 5 percent. While most asset and liability groups increased slightly, declines in two categories should be noted. First, Plant, Property and Equipment and Other Assets declined by over $3 billion. This decrease reflects both the reduction in capital spending and asset divestitures by a number of companies as they refocused corporate activities. Second, Long-Term Debt dropped by almost $3 billion, or 4 percent. This mirrors the stated policy of several Chase Group companies to reduce long-term obligations taken on in the course of major acquisitions or stock repurchases.

CHASE GROUP

GRAPH 9





Sources: 1986 Compared to 1985

Cash flow from operations or cash earnings for the Chase Group fell by $16 billion, or nearly 23 percent, from 1985 to 1986. This decline reflects the fact that improvements in the downstream operations were not enough to offset the reduced cash flow from the production subsidiaries. Issuance of long-term debt decreased by 35 percent, as companies became more concerned about reducing debt levels. Net asset sales increased by 6 percent to $22.4 billion, as companies continued to shed peripheral operations. Total sources for 1986 declined by over $20 billion, or 18 percent, from 1985 levels.

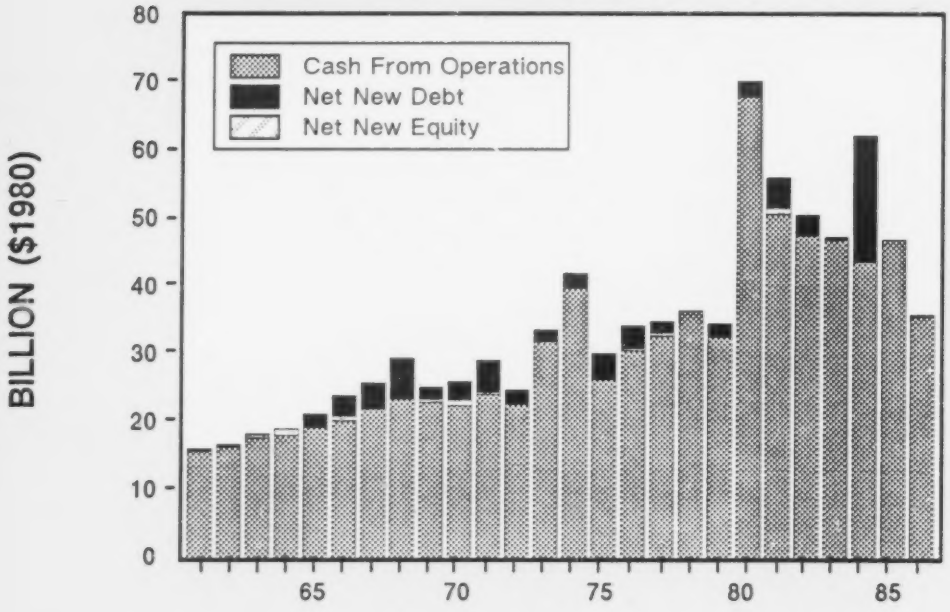
Uses: 1986 Compared to 1985

Reflecting the depressed outlook of the industry, the Chase Group of Companies became more cautious in capital spending. Total uses fell by nearly $35 billion from 1985 to 1986, resulting in a robust net increase to working capital of $11.5 billion.

Capital expenditures suffered a $15 billion decline, as fewer projects received management approval and capital costs were slashed, especially in upstream exploration activities. Despite the industry downturn, dividends increased slightly to $11.1 billion in 1986. Given the massive purchase of stock in previous years, this increase translates to a significant boost in per-share distributions. Long-term debt repayment fell by 30 percent in 1986 to $19 billion. As in 1985, however, the Chase Group of Companies continued to retire more debt than it issued, by a significant margin. Repurchase of common and preferred stock fell from extraordinary levels in 1985 of $17.5 billion to $1.9 billion in 1986, as restructurings waned and low oil prices dictated a cautious approach. Finally, other expenditures increased from $9.3 billion in 1985 to $12.3

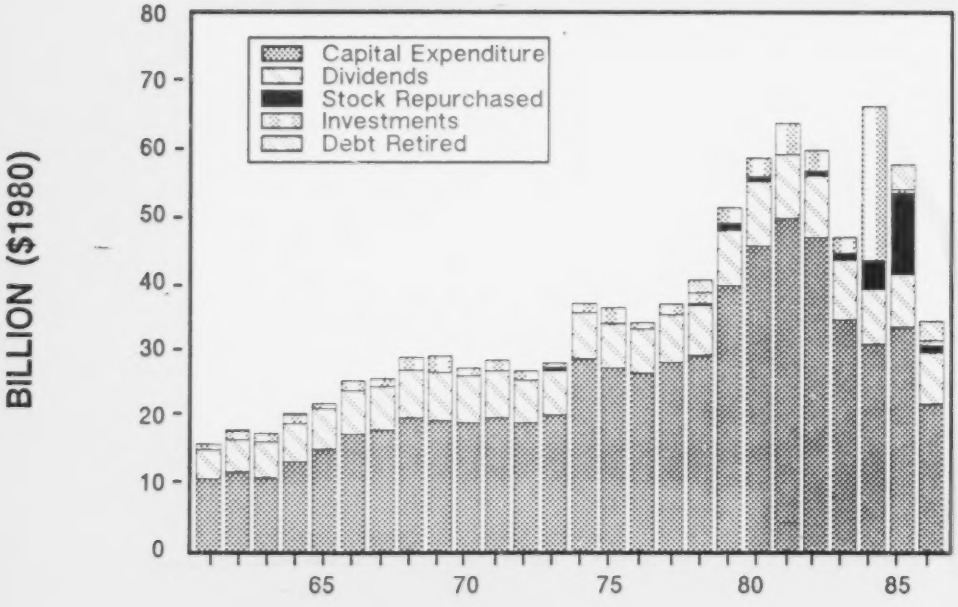
GRAPH 10

CHASE GROUP * – SOURCES OF FUNDS



GRAPH 11

CHASE GROUP * – USES OF FUNDS



* Continuous Chase Group

billion in 1986. About $2 billion of this rise was due to a payment by Exxon to the U.S. federal government in settlement of the Hawkins pricing dispute.

Sources and Uses — A Longer-Term Perspective

The last few years have been extraordinary for the multinational oil companies. In addition to the dramatic decline in energy prices, a number of the multinationals have restructured their balance sheets. Since 1982, the high level of stock repurchases, acquisitions and debt issuance for the Group has been unprecedented and has distorted the traditional patterns of sources and uses of funds.

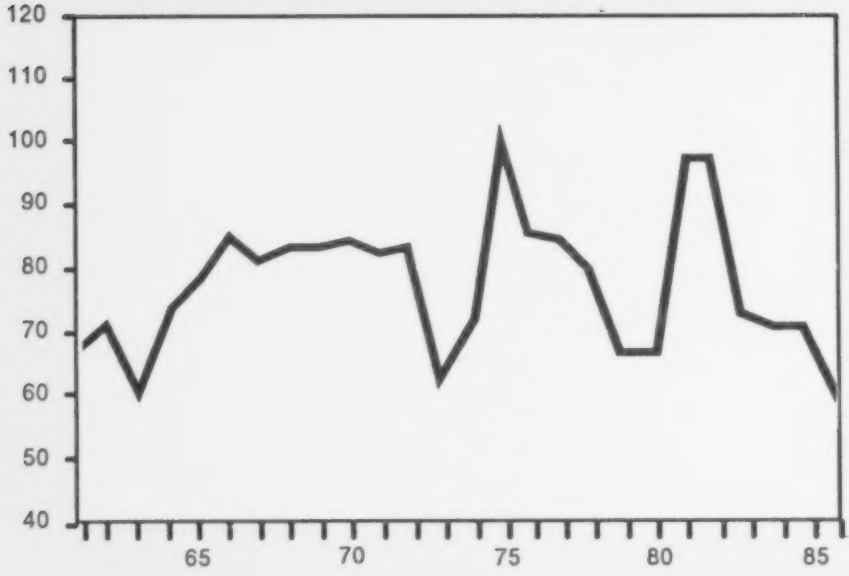
The long-term picture is far less complicated. Sources of funds have been provided almost exclusively from internally generated cash flow from operations, as shown in Graph 10. In fact, internally generated cash flow has historically composed over 90% of total sources. Uses of funds have meant, first and foremost, capital expenditures and, second, dividends, as displayed in Graph 11.

As shown in Graph 12, on average, 70 percent of internally generated cash flow has gone to capital expenditure, mainly upstream ventures. In these uncertain times, it is interesting to note that, in 1986, the percentage of cash flow dedicated to capital expenditures hit a 25-year low. With the return of relative stability in the oil markets in 1987, this low plowback ratio will likely return to historic levels.

As far as cash dividends are concerned, Graph 13 shows that, prior to the boom years, the Group paid out about 30 percent of cash flow. After the first oil shock in 1973, however, dividend payout declined to the 20 percent range, as the companies plowed more funds back into new projects. If stock repurchases are included, the last few years appear to have improved immediate returns to stockholders. It should be remembered, however, that a large portion of these stock repurchases is the result of actions taken by only a few companies; for most companies, dividend payout is still low, relative to the 1960s and early 1970s.

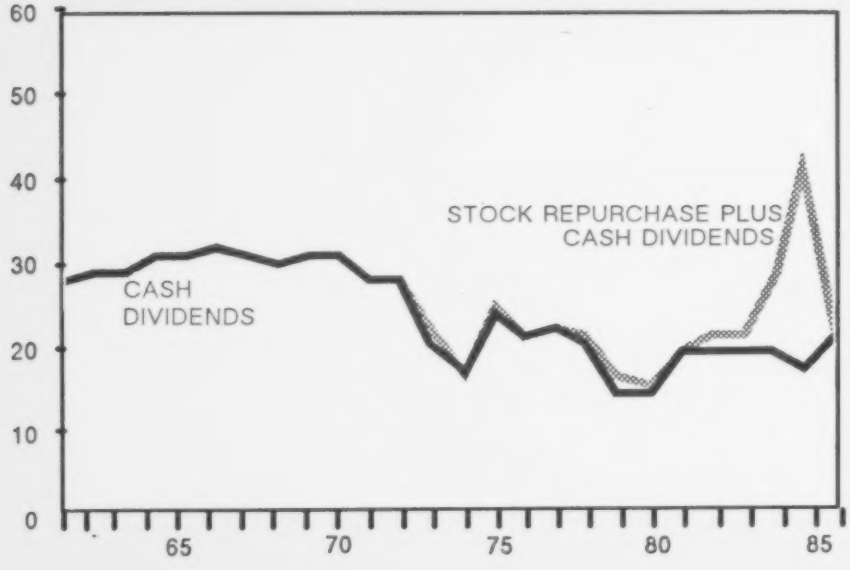
GRAPH 12

CHASE GROUP * – CAPITAL EXPENDITURE PERCENT OF NCF FROM OPERATIONS



GRAPH 13

CHASE GROUP * – DIVIDENDS PERCENT OF NCF FROM OPERATIONS



* Continuous Chase Group

Chase Group and U.S. Independents

While the Chase Group of Companies, in aggregate, remained profitable in 1986, the average U.S. independent saw losses deepen for a number of reasons. First, because of their overwhelming concentration in upstream activities, the independents have little in the way of downstream profits to cushion the downturn in energy prices. Second, the U.S. independents tend to be more dependent on gas revenues than are the multinationals. While gas prices tumbled with oil prices in the first half of 1986, U.S. gas prices did not recover as sharply as oil prices did in the second half of the year. Finally, in contrast to the multinationals, U.S. independents generally follow the full cost accounting convention in which dry holes are amortized rather than expensed. As a consequence, during the boom years, annual profits were boosted, net plant property and equipment was elevated and book equity was higher. According to full cost accounting practices, however, if the projected net present value of reserves is less than their book value, the assets must be written down. Because of the fall in energy prices, a large number of independents were forced to write down assets in 1986, thus further depressing earnings.

A sample of the U.S. independent sector reveals another factor that adversely affected profits — leverage. In comparison with an average debt to total capitalization ratio of about 30 percent for the Chase Group of Companies, a representative sample of U.S. independents indicates a ratio closer to 45 percent. While the Chase Group in aggregate reduced debt by about 4 percent in 1986, the sample of U.S. independents brought down debt by 8 percent. Despite this more aggressive debt runoff, the leverage ratio for the U.S. independents actually increased in 1986 because reductions in book equity, due to operating loss and asset write-downs, outstripped debt reductions.

Perhaps the biggest casualty for the U.S. independent was capital expenditure. The independents have traditionally been a weather vane for capital spending in the United States domestic oil and gas industry, and in 1986, the investment climate had shifted dramatically. Sagging cash flow and pressures to reduce debt resulted in a slashing of capital expenditures by about 48 percent. In contrast, the Chase Group of Companies cut investment by only 30 percent.

Reserves

With a 30 percent decline in capital expenditure, it is little wonder that the Chase Group of Companies generally failed to replace production with new discoveries. The deterioration of reserves brought on by a lower energy price environment has both short-run and long-run ramifications. In the short run, reserves were reduced by an abrupt elimination of uneconomic oil and gas reserves from the proved classification. In the longer run, the reserve replacement rate will gradually decline in line with reduced capital expenditure, unless a dramatic decline in finding costs boosts efficiency more than most analysts now predict.

United States

The Group owns about 50 percent of U.S. liquids reserves and nearly 40 percent of gas reserves. The decline in Chase Group liquid reserves was particularly acute in 1986, as shown in Graph 14. While some of the decline in liquids was due to a failure to replace production, to a large degree this reserve deterioration was due to the effect of lower prices that rendered reserves — previously considered proved — uneconomic.

Because production, as well as reserves, declined, the reserves to production ratio for the Group declined only slightly. As shown in Graph 14, the reserves to production ratio for the Group over the last six years has averaged between 10 to 11 years. The Chase Group's reserves life is generally higher than that of the United States overall.

The natural gas picture is mixed. Graph 15 shows that, although natural gas reserves have declined for the Group, the reserves to production ratio has not experienced a similar decline. This is a result of flagging demand for gas, which has fallen as fast or faster than reserves. As in the case of liquids, the Chase Group has historically enjoyed a higher reserves to production ratio than that of the United States in general.

Foreign Reserves

Outside the United States, the reserves of the Chase Group are dwarfed by the vast resources of the OPEC nations. Only about 3 percent of the oil and gas reserves outside the United States and Centrally Planned Economies (CPE's) are controlled by the Chase Group. However, due to significantly lower reserves to production ratios, and in spite of its much smaller reserve base, the Group accounted for about 15 to 20 percent of the oil and gas production for this region.

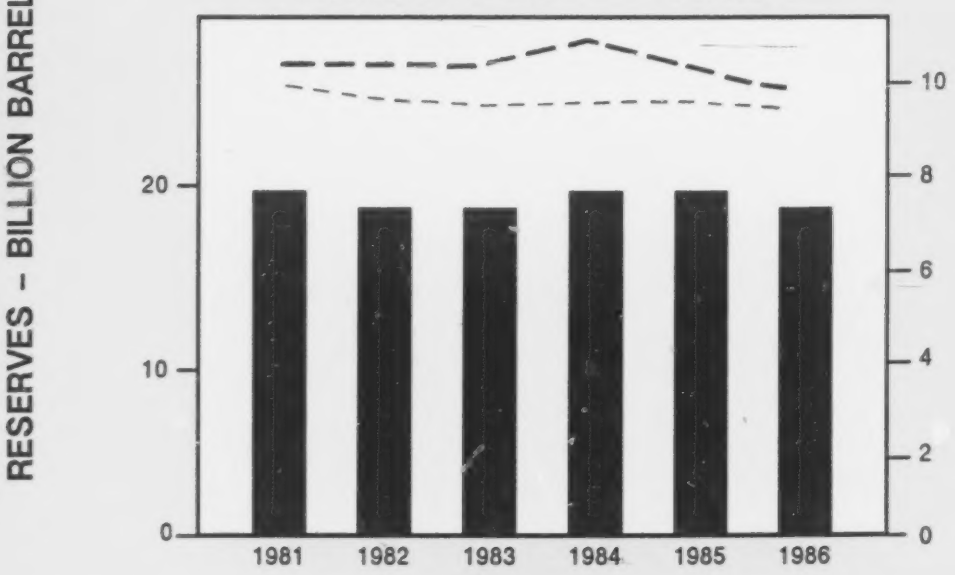
Graph 16 highlights this disparity in reserves to production ratios for oil. Reserves for the group over the last six years have remained between 16 and 17 billion barrels and the reserves to production ratio has declined from about 13 years in 1981 to 10 years in 1986. By comparison, the reserves to production ratio for the world outside the United States and CPE's has increased from 48 years in 1981 to 53 years in 1986. Clearly, time is on OPEC's side.

As far as gas reserves are concerned, the Chase Group has seen a general deterioration in the absolute level of reserves and in its reserves to production ratio over the last few years, as shown in Graph 17. Nevertheless, a reserves to production ratio of about 20 for the Group exceeds the ratio it has in the United States of about 14 years. The ratio for the world outside the United States and CPE's overall has been significantly higher, averaging about 90 years over the last six years. Until foreign gas markets are better developed, or a breakthrough in gas to hydrocarbon liquids conversion technology occurs, it is unlikely that this ratio will decline.

U.S. RESERVES-TO-PRODUCTION RATIO

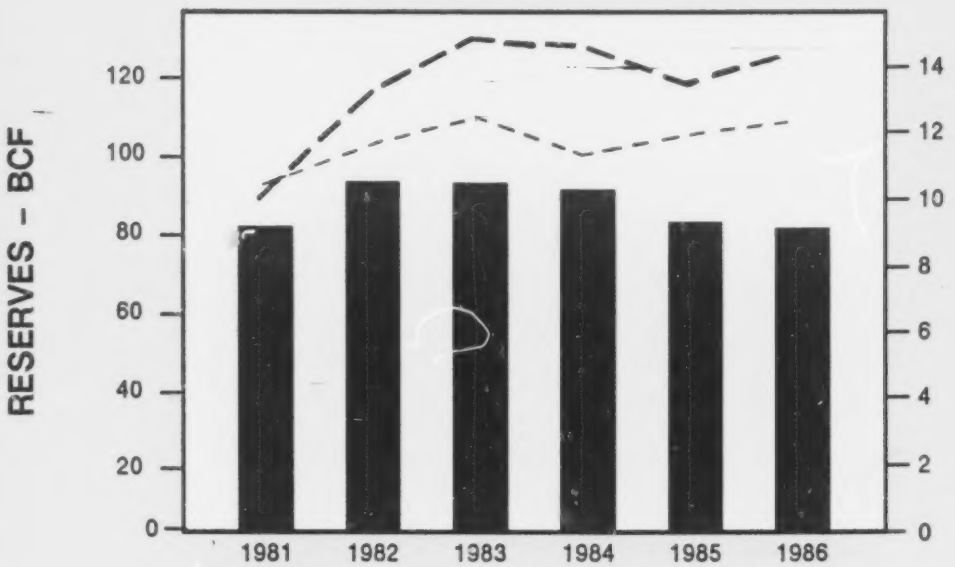
GRAPH 14

CHASE GROUP * – LIQUIDS



GRAPH 15

CHASE GROUP * – GAS



Reserves

Chase Group R/P Ratio

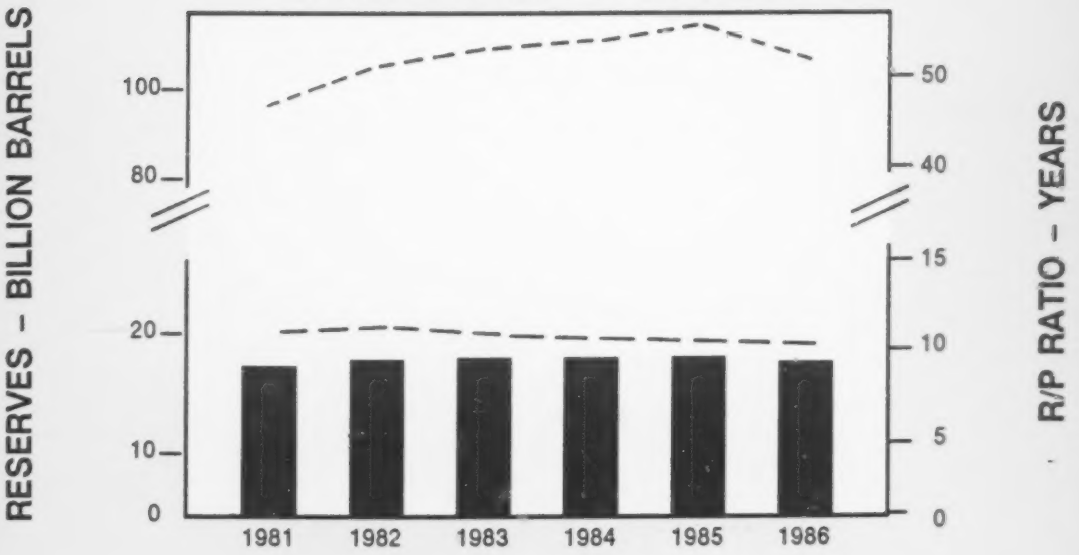
U.S. R/P Ratio

* Continuous Chase Group

FOREIGN RESERVES-TO-PRODUCTION RATIO

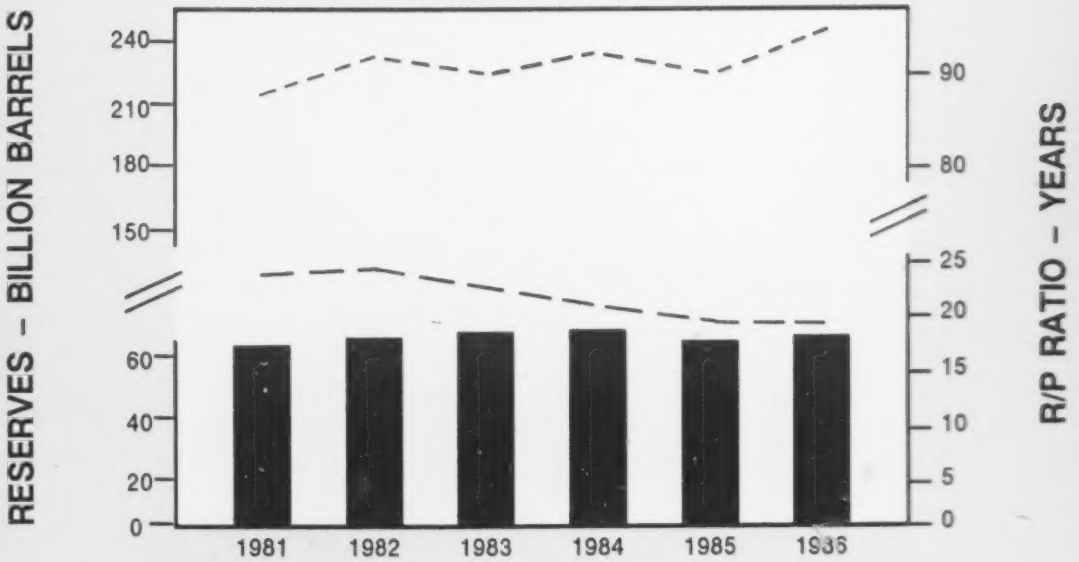
GRAPH 16

CHASE GROUP * - LIQUIDS



GRAPH 17

CHASE GROUP * - GAS



Reserves

Chase Group R/P Ratio

Foreign R/P Ratio

* Continuous Chase Group

1 Operating Data

Net Production of Crude Oil and Natural Gas Liquids

	1986	1985	Change	
	Million Barrels per Day		Volume	Percent
United States	5.40	5.51	-0.11	-2.0
Other Countries	5.38	5.22	0.15	2.9
Total Chase Group	10.78	10.73	0.04	0.4
Memo:				
Percent Share by Chase Group				
- of Total United States Production	52.8	52.3		
- of Total Foreign Production	15.7	16.3		
- of Total Worldwide Production Outside Centrally Planned Economies	24.2	25.3		

Net Production of Natural Gas

	1986	1985	Change	
	Trillion Cubic Feet		Volume	Percent
United States	6.06	6.46	-0.40	-6.1
Other Countries	4.11	4.21	-0.10	-2.5
Total Chase Group	10.17	10.67	-0.50	-4.7
Memo:				
Percent Share by Chase Group				
- of Total United States Production	33.9	35.2		
- of Total Foreign Production	19.9	20.2		
- of Total Worldwide Production Outside Centrally Planned Economies	26.4	27.2		

Refinery Crude Runs

	1986	1985	Change	
	Million Barrels per Day		Volume	Percent
Total Chase Group	18.96	18.69	0.27	1.5

Note: The above figures for companies in the Chase Group include 100 percent of operations of companies and consolidated subsidiaries.

General note for all tables: Components may not add up to totals, due to independent rounding

2 Statement of Income

	1986	1985	Percent Change
	Billion Dollars		
Revenue:			
Gross Operating Revenue	397.2	546.8	-27.4
Nonoperating Revenue	11.7	9.1	29.5
Total Revenue	408.9	555.9	-26.4
Deductions:			
Operating Costs and Expenses	291.3	411.9	-29.3
Selling, General and Administrative Expenses	42.1	43.9	-4.1
Depreciation, Depletion and Amortization	33.0	32.9	0.1
Interest Expense	11.4	12.6	-9.3
Total Deductions	377.8	501.3	-24.6
Net Income before Income Taxes	31.1	54.7	-43.1
Estimated Income Taxes	15.5	32.9	-53.0
Income Applicable to Minority Interests	0.4	1.5	-75.2
Net Income before Extraordinary Items	15.2	20.2	-25.0
Extraordinary items	0.0	-0.3	-95.2
Net Income	15.2	20.0	-24.0

3 Percent Distribution of Total Dollar Revenue

	1986	Percent	1985
Operating Costs and Expenses	71.2		74.1
Selling, General and Administrative Expenses	10.3		7.9
Depreciation, Depletion and Amortization	8.1		5.9
Interest Expense	2.8		2.3
Estimated Income Taxes	3.8		5.9
Income Applicable to Minority Interests	0.1		0.3
Extraordinary Items	0.0		0.0
Dividends to Stockholders	2.7		2.0
Reinvested in Business	1.0		1.6
Total Revenue	100.0		100.0

4 Rates of Return

	1986	1985
	Billion Dollars	
Average Shareholders' Equity (a)	170.7	168.8
Earnings (b)	15.2	20.0
Return for Chase Group	8.9%	11.8%
Average Capital Employed (c)	256.7	257.1
Earnings (d)	26.9	34.0
Return for Chase Group	10.5%	13.2%
Average Gross Fixed Assets	472.9	435.6
Gross Operating Profit (e)	105.9	135.0
Return for Chase Group	22.4%	[illegible]%
Average Total Assets	448.0	444.5
Earnings (f)	15.5	21.4
Return for Chase Group	3.5%	4.8%

(a) Incudes preferred stock, common stock, retained earnings and surplus.

(b) Represents net income.

(c) Includes long-term debt, preferred stock, common stock, retained earnings, surplus and equity of minority interests.

(d) Represents net income, plus interest charges and income applicable to minority interests.

(e) Represents gross operating revenue, less operating costs and expenses.

(f) Represents net income, plus income applicable to minority interests.

5 Earnings Reinvested and Employed

		Billion Dollars
Balance at December 31, 1985		147.5
Add:	Net Income	15.2
	Subtotal	162.6
Less:	Cash Dividends	11.1
	Other Charges (a)	-3.1
Balance at December 31, 1986		154.7

(a) Includes miscellaneous adjustments such as foreign currency translation, retirement of treasury stock, sale of subsidiaries, accounting changes and/or restatement of the balance sheet.

6 Balance Sheet

	12/31/86	12/31/85	12/31/86	12/31/85
	Billion Dollars		Percent Distribution	
Assets				
Current Assets	130.3	142.9	29.5	31.4
Investments and Advances	26.1	23.7	5.9	5.2
Property, Plant and Equipment (a)	278.9	281.9	63.2	61.9
Other Assets	5.9	6.6	1.3	1.4
Total Assets	441.2	454.8	100.0	100.0
Liabilities and Net Worth				
Liabilities:				
Current Liabilities	101.6	125.8	23.0	27.6
Long-Term Debt	74.3	77.2	16.8	17.0
Deferred Taxes	50.0	47.7	11.3	10.5
Other Reserves	29.8	27.8	6.7	6.1
Minority Interests	10.7	9.9	2.4	2.2
Total Liabilities	266.3	288.4	60.4	63.4
Shareholders' Equity:				
Preferred Stock	0.6	0.8	0.1	0.2
Common Stock	12.3	11.6	2.8	2.6
Capital Surplus	7.5	6.5	1.7	1.4
Retained Earnings	154.7	147.5	35.0	32.4
Total Shareholders' Equity	174.9	166.5	39.6	36.6
Total Liabilities and Shareholders' Equity	441.2	454.8	100.0	100.0

(a) After deducting accumulated reserves of 205.5 billion in 1986 and 179.8 billion in 1985.

7 Working Capital

	12/31/86	12/31/85	Change	12/31/86	12/31/85
	Billion Dollars			Percent Distribution	
Current Assets					
Cash and Equivalents	38.8	31.1	7.7	29.8	21.8
Accounts and Notes Receivable	48.2	59.3	-11.1	37.0	41.5
Inventories	35.2	42.4	-7.2	27.0	29.7
All Other	8.1	10.1	-2.0	6.2	7.1
Total Current Assets	130.3	142.9	-12.6	100.0	100.0
Current Liabilities					
Accounts Payable	37.7	52.3	-14.5	37.1	41.6
Notes and Loans Payable	20.6	22.8	-2.2	20.3	18.1
Income Taxes Payable	15.9	19.7	-3.8	15.6	15.7
All Other	27.4	31.0	-3.6	27.0	24.7
Total Current Liabilities	101.6	125.8	-24.2	100.0	100.0
Working Capital	28.7	17.2	11.5		
Memo:					
Current Ratio for Chase Group	1.28	1.14			

8 Source and Use of Working Capital

	1986	1985
	Billion Dollars	
Funds Available from:		
Cash Earnings (a)	54.1	70.2
Long-Term Debt Issued	14.8	22.7
Preferred and Common Stock Issued	1.2	0.5
Sale of Investments	0.3	0.4
Net Assets Sales and Other Transactions	22.4	19.1
Total	92.7	113.0
Funds Used for:		
Capital Expenditures	35.0	49.8
Investments and Advances	1.9	1.6
Cash Dividends	11.1	10.9
Long-Term Debt Repaid	19.0	27.1
Preferred and Common Stock Retired	1.9	17.5
Other	12.3	9.3
Total	81.2	116.1
Change in Working Captial	11.5	-3.1

(a) Cash Earnings represented by:	1986	1985
	Billion Dollars	
Net Income	15.2	20.0
Depreciation, Depletion and Amortization	33.0	32.9
Other Noncash Charges (net)*	6.0	17.3
Cash Earnings	54.1	70.2

* Includes deferred taxes, dividends greater than equity interests in unconsolidated subsidiaries, income applicable to minority interests, and writedowns of assets and discontinued operations.

9 Estimated Proved Developed and Undeveloped Reserves of Oil and Gas — 1986

Crude Oil and Natural Gas Liquids

United States:	Billion Barrels
Reserves at Beginning of Year	20.36
Revisions of Previous Estimates	0.08
Additions from Extensions and Discoveries	0.29
Additions from Improved Recovery	0.48
Purchases of Minerals in Place	0.26
Sales of Minerals in Place	-0.10
Production	-1.97
Reserves at End of Year	19.39
Of Which Proved Developed Reserves	15.32
Memo:	
End-of-Year Reserves-to-Production Ratio	9.85

Foreign:	Billion Barrels
Reserves at Beginning of Year	19.24
Revisions of Previous Estimates	-0.03
Additions from Extensions and Discoveries	0.67
Additions from Improved Recovery	0.28
Purchases of Minerals in Place	0.01
Sales of Minerals in Place	-0.11
Production	-1.84
Reserves at End of Year	18.23
Of Which Proved Developed Reserves	12.88
Memo:	
End-of-Year Reserves-to-Production Ratio	9.91

Total Worldwide (Including U.S.):	Billion Barrels
Reserves at Beginning of Year	39.61
Revisions of Previous Estimates	0.04
Additions from Extensions and Discoveries	0.95
Additions from Improved Recovery	0.76
Purchases of Minerals in Place	0.27
Sales of Minerals in Place	-0.21
Production	-3.81
Reserves at End of Year	37.62
Of Which Proved Developed Reserves	28.20
Memo:	
End-of-Year Reserves-to-Production Ratio	9.88

9 Estimated Proved Developed and Undeveloped Reserves of Oil and Gas — 1986 (Continued)

Natural Gas

United States:	Trillion Cubic Feet
Reserves at Beginning of Year	85.92
Revisions of Previous Estimates	1.59
Additions from Extensions and Discoveries	2.63
Additions from Improved Recovery	0.05
Purchases of Minerals in Place	0.79
Sales of Minerals in Place	-0.39
Production	-6.06
Reserves at End of Year	84.54
Of Which Proved Developed Reserves	61.47
Memo:	
End-of-Year Reserves-to-Production Ratio	13.96

Foreign:	Trillion Cubic Feet
Reserves at Beginning of Year	67.67
Revisions of Previous Estimates	1.50
Additions from Extensions and Discoveries	3.72
Additions from Improved Recovery	0.08
Purchases of Minerals in Place	0.04
Sales of Minerals in Place	-0.21
Production	-3.92
Reserves at End of Year	68.86
Of Which Proved Developed Reserves	47.50
Memo:	
End-of-Year Reserves-to-Production Ratio	17.56

Total Worldwide (Including U.S.):	Trillion Cubic Feet
Reserves at Beginning of Year	153.59
Revisions of Previous Estimates	3.09
Additions from Extensions and Discoveries	6.35
Additions from Improved Recovery	0.13
Purchases of Minerals in Place	0.83
Sales of Minerals in Place	-0.61
Production	-9.98
Reserves at End of Year	153.40
Of Which Proved Developed Reserves	108.98
Memo:	
End-of-Year Reserves-to-Production Ratio	15.37

9 Estimated Proved Developed and Undeveloped Reserves of Oil and Gas — 1986 (Continued)

Total Crude Oil, Natural Gas Liquids and Natural Gas (a)

United States:	Billion Barrels
Reserves at Beginning of Year	34.68
Revisions of previous Estimates	0.34
Additions from Extensions and Discoveries	0.72
Additions from Improved Recovery	0.49
Purchases of Minerals in Place	0.39
Sales of Minerals in Place	-0.17
Production	-2.98
Reserves at End of Year	33.48
Of Which Proved Developed Reserves	25.57
Memo:	
End-of-Year Reserves-to-Production Ratio	11.24

Foreign:	Billion Barrels
Reserves at Beginning of Year	30.52
Revisions of Previous Estimates	0.22
Additions from Extensions and Discoveries	1.29
Additions from Improved Recovery	0.30
Purchases of Minerals in Place	0.01
Sales of Minerals in Place	-0.14
Production	-2.49
Reserves at End of Year	29.71
Of Which Proved Developed Reserves	20.79
Memo:	
End-of-Year Reserves-to-Production Ratio	11.92

Total Worldwide (Including U.S.):	Billion Barrels
Reserves at Beginning of Year	65.20
Revisions of Previous Estimates	0.56
Additions from Extensions and Discoveries	2.01
Additions from Improved Recovery	0.79
Purchases of Minerals in Place	0.41
Sales of Minerals in Place	-0.31
Production	-5.47
Reserves at End of Year	63.18
Of Which Proved Developed Reserves	46.36
Memo:	
End-of-Year Reserves-to-Production Ratio	11.55

(a) Expressed in terms of "Crude oil equivalent", defined as the sum of the previous tables for crude oil, natural gas liquids, and natural gas, using a conversion factor of six thousand cubic feet of natural gas per barrel of liquids.

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